

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 63442-083	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US 03/11502	International filing date (day/month/year) 15.04.2003	Priority date (day/month/year) 15.04.2002
International Patent Classification (IPC) or both national classification and IPC C08L81/06		
Applicant SOLVAY ADVANCED POLYMERS, LLC et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
  
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
  - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.
  
3. This report contains indications relating to the following items:
  - I  Basis of the opinion
  - II  Priority
  - III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
  - IV  Lack of unity of invention
  - V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
  - VI  Certain documents cited
  - VII  Certain defects in the international application
  - VIII  Certain observations on the international application

Date of submission of the demand  24.10.2003	Date of completion of this report  17.05.2004
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Russell, G Telephone No. +49 89 2399-8738



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US 03/11502

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-26 as originally filed

**Claims, Numbers**

1-19 as originally filed

**Drawings, Sheets**

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	2-4,12,13
	No: Claims	1,5-11,14-19
Inventive step (IS)	Yes: Claims	
	No: Claims	1-19
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US03/11502

**Paragraph V:**

1. Novelty and inventive step (Articles 33(2) and 33(3) PCT)
  - 1.1 D1 (JP-A-7179758) relates to an aromatic polysulphone resin moulding material with high thermal stability and good appearance and used particularly for articles where hue is important ([0033]). Said material comprises aromatic polyether sulphone resin (e.g., RADEL A100, A200, A300), fatty acid amide and/or bisamide, and a phosphite type stabiliser. Colorant may be added optionally to the molding material ([0013]). This represents a single choice from a single list.

D3 (DE-A-197 32 155) describes a moulding composition, useful for production of fibres, film and moulded articles which comprises polyarylene ether, thermoplastic styrene copolymer, an oligomeric phosphorous compound as well as other optional components (claim 1). Polyether sulfones (I<sub>1</sub> to I<sub>7</sub>) and polyphenyl sulfones (I<sub>8</sub> to I<sub>12</sub>) are preferred as polyarylene ether (pgs. 3, 4, 8; Examples; claim 2). Dye and pigments are among the list of optional components G (pg. 13, I 26-43), representing a choice from a single list.

D4 (US-A-6 355 723) discloses a molded article of low haze comprising a single phase amorphous thermoplastic resin or resin blend and at least one colorant (col 5, I 39-60; claim 1), whereby the resin may be a polyether sulfone (claim 2).

Phosphite antioxidants may be optionally present (col 3, I 48-51).

Compositions H and I (Table 1) comprise polyetherimide resin, colorants (pigments and dyes) and phosphorous containing stabilizers. Substitution of the polyetherimide in these compositions with the selection of polyether sulfone from the list of amorphous thermoplastic resins, is novelty destroying for the composition of claim 1 of the current specification.

D5 (GB-A-1 398 133) describes thermoplastic aromatic polyether sulphone compositions stabilised with phosphate esters, giving better heat stability especially in the molten state and improved colour (claims 1, 3, 14). Dyes and pigments are described as optional components in a list (pg. 4, I 30).

Compositions D to N (Example 1; Table 1B) have %transmissions over 50 (see also Tables 2 and 3B).

Therefore, the subject-matter of claims 1, 5-11, and 14-19 is neither novel nor inventive.

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- 1.2 Examples 2 and 3 of the specification do not fulfill the requirements of light transmittance, color factor, yellowness, or haze as desired in the application (see pg. 11, 3. §; claims 7, 8), i.e., said polyphenylsulfone compositions do not solve the technical problem to be solved. Hence, the current application encompasses also compositions which are not inventive.